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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,381	04/06/2005	Adrianus Johannes Stephanes Maria De Vaan	NL 020965	4938

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

DOWLING, WILLIAM C

ART UNIT PAPER NUMBER

2851

DATE MAILED: 11/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/530,381

Applicant(s)

DE VAAN, ADRIANUS JOHANNES
STEPHANES MA

Examiner

William C. Dowling

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 14 is objected to because of the following informalities: claim 14 has no proper antecedent for "said color recombination prism". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 10, 12-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Hansen et al. (6,666,556).

Hansen et al. (6,666,556) discloses a projection arrangement comprising:

A light source with a focusing reflector (22);

Polarizers (26d, 26e, 26f) which as noted in Column 14 Lines 38-46 may be of the wire grid type;

Transmissive display panels (16a, 16b, 16c), which as noted in Column 11 Lines 62-65 may be of the liquid crystal polarization modulation type;

Second set of wire grid polarizers (14a, 14b, 14c) downstream of the display panels;

A recombination prism (27) for combining modulated red, blue and green light.

The polarizers are oriented at 45 degree angles to the incident light.

Dichroic reflectors and recombination prism creates a two layer structure.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-9, 11, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen et al. in view of Nishida (6,871,963) and Sonehara (5,098,183).

As regards Claims 6 and 7 it is well known to control image modulators by providing video signals through some sort of processor. It is further well known that electrodes formed upon a substrate of an LCD panel provide the control circuitry for the individual pixels forming the panel.

With respect to Claims 8-9, 11, the use of color separation prisms within color projection systems is old and known.

Nishida teaches a color separation system comprising cross dichroic surfaces (200A) and lenses adjacent transmissive modulators, to illuminate the panels, and a cross dichroic prism for recombination of modulated lights.

Sonehara teaches the use of crossed dichroic surfaces within a color separation prism. Figure 1

It would have been obvious to one of ordinary skill in the art to modify the device having wire grid polarizers before and after transmissive modulators as shown by Hansen et al. for use with alternate types of color separation systems, such as one having a dichroic cube prism as a color separation means because both types allow for the separation of light into three color light paths. The invention resides in the use of polarizers before and after transmission type panels, thus Hansen could obviously be modified by separating light into three color components by any known structures.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen, Nishida, and Sonehara as applied to claim 11 above, and further in view of Pentico (7,108,374).

Hansen, Nishida, and Sonehara disclose the invention substantially as claimed but do not teach the use of lenses for focusing modulated light before a combiner.

Figure 6 of Nishida teaches a lens (633) for focusing modulated light.

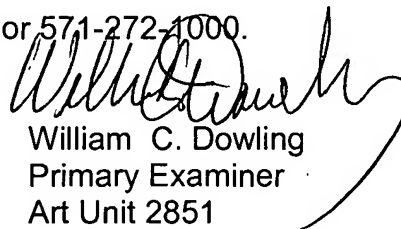
It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination by providing a lens preceding the color combining means in order to provide a narrower focused beam and allow for reduction in size of the combining means.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Dowling whose telephone number is 571-272-2116. The examiner can normally be reached on MON-THURS.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on 571-272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William C. Dowling
Primary Examiner
Art Unit 2851

wcd